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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,253	01/31/2001	John E. Hoffmann	2479.2021-000	4333
21005	7590	09/08/2004	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			MUNOZ, GUILLERMO	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/773,253	Applicant(s) HOFFMANN ET AL.	
	Examiner Guillermo Munoz	Art Unit 2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/22/02, 02/20/04, 08/03/04</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to because figure 3 contains labels not clearly linked to elements within the figure. Furthermore, figure 3 should be illustrated as a flow chart in support of claimed method for coding. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph.

Claim 1 recites the limitation "the number of modulated symbols in a transmitted" in line 10. There is insufficient antecedent basis for this limitation in the claim. It is suggested that the phrase "the number of modulated symbols in a transmitted" be replaced with the phrase —the number of FEC symbols in the transmitted—.

Claim 2 recites the limitation "the number of encoded symbols" in line 1. There is insufficient antecedent basis for this limitation in the claim. It is suggested that the phrase "the number of encoded symbols" be replaced with the phrase —the number of FEC symbols—.

Claim 2 further recites the limitation "in each transmitted frame" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. It is suggested that the phrase "in each transmitted frame" be replaced with the phrase —in each transmitted block—.

Claim 2 further recites the limitation "a symbol encoding rate" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is suggested that the phrase "a symbol encoding rate" be replaced with the phrase —the rate of the FEC code—.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the phrases "FEC symbols" in line 11 and "symbol modulating the FEC symbols". Claim 3 recites the limitation "a symbol modulator rate" in line 1, rendering the claim indefinite for failing to clearly indicate which symbol rate is addressed. The same can be improved by rewriting the claim language as follows: —the symbol modulating—.

Claim 4 further recites the limitation "per modulator symbol" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. It is suggested that the phrase "per modulator symbol" be replaced with the phrase —per transmitted block—.

Claim 5 further recites the limitation “the coding rate” in line 3. There is insufficient antecedent basis for this limitation in the claim. It is suggested that the phrase “the coding rate” be replaced with the phrase —the rate of the FEC code—.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the following phrases “symbol modulating the FEC symbols” in line 13 and “channel coding the modulated symbols with a spreading code and a channel code” in lines 16-17. Claim 6 recites the limitation “each encoded symbol” in line 2, rendering the claim indefinite for failing to clearly indicate which coding step is referred. It is suggested the phrase “each encoded symbol” be replaced with the phrase —each of the modulated symbols with a spreading code and a channel code—.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 9 recites the limitation “a symbol encoding rate” in line 1, rendering the claim indefinite for failing to clearly indicate which symbol rate is addressed. The same can be improved by rewriting the claim language as follows: —the rate of the FEC code—.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10 recites the limitation “a symbol coding rate” in line 2, rendering the claim indefinite for failing to clearly indicate which symbol rate is addressed. The same can be improved by rewriting the claim language as follows: —the rate of the FEC code—.

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Claims 7 and 8 are dependent on rejected claims, and are rejected under 35 U.S.C. 112, second paragraph.

***Allowable Subject Matter***

Claims 1-11 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

The following is an examiner's statement of reasons for allowance:

Claims 1-11 are considered allowable because the present invention comprises a wireless communications system for transmitting variable length blocks of bits. The blocks having variable rate FEC coding is adjusted to maintain a constant number of FEC symbols in the FEC coded block. The closest prior art, Kolze et al. (US Patent Number 6,285,681) shows a similar circuit including a transmitter for transmitting groups of bits of various lengths. The groups of bits having variable rate FEC coding applied. However, Kolze et al. fails to teach adjusting the FEC code rate to maintain a constant number of FEC symbols in the FEC coded block. This distinct feature has been included in independent claim 1 rendering it allowable. Claims 2-11 are dependent upon claim 1 and are thereby considered allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Munoz whose telephone number is 571-272-3045. The examiner can normally be reached on Monday-Friday 8:30a.m-4:30p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



GM  
September 4, 2004



YOUNG T. TSE  
PRIMARY EXAMINER